

Amendments to the Specification

Please replace the paragraph on page 12, lines 12-22 of the specification with the following amended paragraph:

With respect to the heater tube 200, the inner diameter 236 should be wide enough to permit the small, common, commercially available thermocouple (i.e., $1/16$ -inch diameter) to pass freely through the tube orifice 214. The outer diameter 220 of the central portion ~~224~~210 should be narrow enough to permit the JFTOT to resistively heat the tube to at least 260°C using a standard 220-V or less power source. At the same time, the tube wall should be thick enough to withstand the compressive forces of a roller burnisher used to finish the surface. Also, the diameter 232 of the end portions 204 should be precise enough to prevent fuel leakage when inserted into the O-rings of the JFTOT machine. Fortunately, these constraints permit dimensional variations of up to a tenth of a millimeter. Such tolerances are easily attainable using modern manufacturing and machining equipment, which is capable of achieving dimensional tolerances of less than 10 angstroms.

Please replace the paragraph bridging page 18, line 19 through page 19, line 7, with the following amended paragraph:

With the burnishing machine assembly 300 used in the experimental development of this invention, the $3/16$ -inch diameter portions are burnished with a mandrel having a tapered bore whose diameter progresses from approximately 0.48 inches on one end to approximately 0.75 inches at the other end. The mandrel is approximately 1.25 inches long from end to end. Three tapered rollers are used having a length of approximately 0.625 inches from end to end, and which vary in diameter from approximately 0.138 to 0.161 inches from end to end. Because this set of rollers is even smaller than the rollers used for burnishing the central portion of the heater tube, they rotate at approximately 3.5 to 4.7 times the RPM of the mandrel. Accordingly, operating the mandrel at speeds of 100 to 300 RPM translates into roller speeds of approximately 350 to 1400 RPM. Because the end portions 204 of the heater tube 200 are wider than the rollers, the heater tube itself rotates at slower speeds of ~~approximately 250 to 1600 RPM~~ than the rollers.